L Number	Hits	Search Text	DB	Time stamp
-	2	6087403.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:16
-	2	5688930.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:46
-	3	"6344346"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:47
-	2	"6156543"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:48
-	13	"699472"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:48
-	8	"880538"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:49
-	75	"0014589"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:49
-	2	"0014589" and bertho	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:51
-	10	"2816517"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 12:55
-	1	3450690.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:00
-	13	"699472"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:00
-	4	"062027"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:01
-	30	"62027"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:02
-	8	"2744648"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:04

-	8	"895805"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:05
-	9	"1027921"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:06
-	2	"9637285"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:08
-	10	"9513863"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:09
-	25	"9206778"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 13:09
-	0	"5688930" and fusel	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 14:16
-	0	"5688930" and amyl	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 14:57
-	470	fusel adj oil	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 14:57
-	0	(fusel adj oil) same adjuvsnt	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 14:57
-	6	(fusel adj oil) same adjuvant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:29
-	3	(fusel adj oil) and polyglycoside	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:30
-	6	(fusel adj oil) and glycoside	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:32
-	88	(fusel adj oil) and adjuvant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:32
-	2	(fusel adj oil) and glycosylation	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:32

-	1	(fusel adj oil) and glycosidation	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:33
-	23	(fusel adj oil) and solubilizing	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:36
-	6153	reducing adj sugar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:36
-	61609	(acid acidic) adj catalyst	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:37
-	296	(reducing adj sugar) and ((acid acidic) adj catalyst)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:37
-	39	(reducing adj sugar) same ((acid acidic) adj catalyst)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:38
-	23	((reducing adj sugar) same ((acid acidic) adj catalyst)) and glycos$	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:39
-	13	(((reducing adj sugar) same ((acid acidic) adj catalyst)) and glycos$) and solubili$	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:45
-	3	((((reducing adj sugar) same ((acid acidic) adj catalyst)) and glycos$) and solubili$) and fusel	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:39
-	332	(fusel adj oil) same alcohol	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:48
-	3	(fusel adj oil) same alkanol	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/30 15:49
-	72	(fusel adj oil) same (amyl adj alcohol)	USPAT	2002/12/30 16:27
-	0	((fusel adj oil) same (amyl adj alcohol)) and (solubilizing adj adjuvant)	USPAT	2002/12/30 16:28
-	7	((fusel adj oil) same (amyl adj alcohol)) and solubilizing	USPAT	2002/12/30 16:28
-	6978	amyl adj alcohol	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:16
-	6160	reducing adj sugar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:16

-	53528	acid adj catalyst	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:17
-	3	(amyl adj alcohol) and (reducing adj sugar) and (acid adj catalyst)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:17
-	3	(amyl adj alcohol) and (reducing adj sugar) and (acid adj catalyst)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:19
-	978	pentyl adj alcohol	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 10:19
-	2	(reducing adj sugar) and (acid adj catalyst) and (pentyl adj alcohol)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:27
-	1261	alkyl adj glucoside	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:27
-	504	(alkyl adj glucoside) same surfactant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:27
-	49	((alkyl adj glucoside) same surfactant) and (solubilization solubilixing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:32
-	0	(alkyl adj glucoside) same (solubiliz$ adj adjuvant)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:31
-	157	((alkyl adj glucoside) same surfactant) and (solubilization solubiliZing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:33
-	108	(((alkyl adj glucoside) same surfactant) and (solubilization solubiliZing)) not (((alkyl adj glucoside) same surfactant) and (solubilization solubilixing))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 11:33
-	43	(((alkyl adj glucoside) same surfactant) and (solubilization solubiliZing)) and adjuvant	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/12/31 12:37

FILE 'CAPLUS, USPATFULL, AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUIRE, BABS, BIOCOMMERCE, BIOTECHNO, CABA, CAOLD, CBNB, CEABA-VTB, CEN, CERAB, CIN, COMPENDEX, CONFSCI, COPPERLIT, CORROSION, ENCOMPLIT, ENCOMPLIT2, FEDRIP, GENBANK, INSPEC, INSPHYS, INVESTEXT, ..' ENTERED AT 10:04:46 ON 31 DEC 2002

L1 2781 S FUSEL OIL
L2 93074 S ACID CATALYST
L3 59159 S REDUCING SUGAR

=> s l1 and l2 and l3
46 FILES SEARCHED...
L4 4 L1 AND L2 AND L3

=> d kwic ti ab bib 1-4 l4

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
TI Process for preparing solubilizing adjuvants from **fusel oils** and **reducing sugars**
AB Solubilizing adjuvants are prepd. by the reaction of **fusel oils** with a **reducing sugar** in presence of an **acid catalyst** at a temp 50-130.degree., and removing the water from the reaction medium to obtain a soln. of alkyl glycosides which is then sepd. Thus, 630 g **fusel oil** contg. water 6, ethanol 3.2, 2-propanol 0.2, 1-propanol 0.2, 2-methyl-propanol 10.1, 1-butanol 0.3, 3-methyl-butanol 55.3, 2-methylbutanol 21, and impurities 1.9%. . . pressure for 3 h at 100.degree.. The water was then eliminated by azeotropic distn., the acid was neutralized, and excess **fusel oil** was evapd. The alkyl xylosides thus obtained were dissolved in 100 g of water and discolored with 5 g of. . .
ST solubilizing adjuvant **fusel oil reducing sugar**
IT Rape oil
RL: RCT (Reactant); RACT (Reactant or reagent)
(Me esters; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Glycosides
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyl polyglycosides; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Glycosides
Xylosides
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyl; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Surfactants
(amphoteric; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Surfactants
(cationic; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(citrus; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(eucalyptus; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)
IT Essential oils

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(grapefruit; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Surfactants
(ionic; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(lavender; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(mandarin orange; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(mint, Mentha; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Surfactants
(nonionic; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(orange, sweet; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(pine; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Boiling point
Cosmetics
Detergents
Drug delivery systems
Fusel oil
Perfumes
Preservatives
Solubilizers
(process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Hexoses
Pentoses
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Carbohydrates, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(**reducing sugars**; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT Essential oils
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(rosemary; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT 50986-18-0P, Arabinoside
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyl; process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT 89-83-8, Thymol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(process for prepg. solubilizing adjuvants from **fusel**

oils and **reducing sugars**)

IT 151-21-3, Sodium dodecyl sulfate, biological studies
RL: COS (Cosmetic use); PRP (Properties); BIOL (Biological study); USES (Uses)
(process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT 110-27-0, Isopropyl myristate 112-30-1, 1-Decanol
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

IT 50-99-7, Glucose, reactions 58-86-6, D-Xylose, reactions 59-23-4, D-Galactose, reactions 64-17-5, Ethanol, reactions 67-63-0, 2-Propanol, reactions 71-23-8, 1-Propanol, reactions 71-36-3, 1-Butanol, reactions 78-83-1, reactions 123-51-3 137-32-6 3458-28-4, D-Mannose 5328-37-0, L-Arabinose
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for prepg. solubilizing adjuvants from **fusel oils** and **reducing sugars**)

TI Process for preparing solubilizing adjuvants from **fusel oils** and **reducing sugars**

AB Solubilizing adjuvants are prepd. by the reaction of **fusel oils** with a **reducing sugar** in presence of an **acid catalyst** at a temp 50-130.degree., and removing the water from the reaction medium to obtain a soln. of alkyl glycosides which is then sepd. Thus, 630 g **fusel oil** contg. water 6, ethanol 3.2, 2-propanol 0.2, 1-propanol 0.2, 2-methyl-propanol 10.1, 1-butanol 0.3, 3-methyl-butanol 55.3, 2-methylbutanol 21, and impurities 1.9% was reacted with 170 g D-xylose and 3.4 g sulfuric acid under reduced pressure for 3 h at 100.degree.. The water was then eliminated by azeotropic distn., the acid was neutralized, and excess **fusel oil** was evapd. The alkyl xylosides thus obtained were dissolved in 100 g of water and discolored with 5 g of 50% hydrogen peroxide at neutral pH. Use of the above alkyl xylosides as solubilizing adjuvant for perfumes, essential oils, and detergents is described.

AN 2002:426658 CAPLUS
DN 136:406616
TI Process for preparing solubilizing adjuvants from **fusel oils** and **reducing sugars**
IN Bertho, Jean-Noel; De Baynast, Regis
PA Agro Industrie Recherches et Developpements (A.R.D.), Fr.
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1211258	A1	20020605	EP 2001-402808	20011030
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
FR 2816517	A1	20020517	FR 2000-14589	20001114
JP 2002220399	A2	20020809	JP 2001-344980	20011109
US 2002099187	A1	20020725	US 2001-8791	20011113
PRAI FR 2000-14589	A	20001114		

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 USPATFULL
TI Process for preparing solubilization adjuvants from **fusel oils** and saccharides
AB Process for preparing a solubilization adjuvant, which comprises placing

fusel oils in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium until. . .

SUMM [0002] **Fusel oils** form colourless or yellowish liquids, which have a characteristic odour. They have a density of about 0.83. Their boiling point. . .

SUMM [0003] **Fusel oils** are fatal co-products of alcohol fermentation. These oils, which are produced by yeast in anaerobiosis from nitrogenous materials, are recovered. . .

SUMM [0004] **Fusel oils** represent on average 2% to 5% of the ethanol manufactured. As the industrial production of ethanol in France is 3. . .

SUMM [0005] **Fusel oils**, occasionally referred to as "amyl oils" or "fusels", have compositions which vary depending on their origin (potato, beet, wheat, barley,. . .

SUMM [0013] One subject of the invention is a process for preparing a solubilization adjuvant, which comprises placing **fusel oils** in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium until. . .

SUMM [0014] The term "**reducing sugar**" means reducing saccharides chosen from aldoses such as threose, erythrose, xylose, lyxose, ribose, arabinose, glucose, galactose, mannose, idose, gulose, talose,. . .

SUMM [0015] The term "**reducing sugar**" also means uronic acids such as galacturonic acid, glucuronic acid or mannuronic acid. The term "**reducing sugar**" furthermore means non-reducing disaccharides and oligosaccharides such as, for example, sucrose which, in the presence of an **acid catalyst** such as sulfuric acid, lead to reducing monosaccharides. Finally, the term "**reducing sugar**" means mixtures of these sugars mentioned above.

SUMM [0019] Mixtures of **reducing sugars** mainly consisting of D-glucose and pentoses, especially D-xylose and L-arabinose, are most particularly appreciated. Preferably, use is made of mixtures of **reducing sugars** derived from hemicellulose-rich and/or starch-rich agricultural co-products such as, for example, wheat straw, raw or starch-freed wheat bran, starch factory. . . patent EP 0 699 472, agricultural co-products as defined in patent EP 0 880 538 and more particularly mixtures of **reducing sugars** containing from 25% to 98%, preferably 60% to 100% and more particularly 90% to 100%, of pentoses and 0% to. . .

SUMM [0020] The **reducing sugars** or mixtures of **reducing sugars** may be crystallized or, preferably, used in the form of syrups.

SUMM [0021] The first stage of the process according to the invention, commonly known as glycosylation, consists in placing **fusel oils** in contact with sugars in the presence of an **acid catalyst** while removing the water from the reaction medium. However, before the placing in contact, it is preferred to purify the **fusel oils**. This step is advantageously performed by rectification. It allows the removal of the heavy residues from the **fusel oils** (mainly consisting of impurities) which have boiling points of greater than 140.degree. C. In addition to the heavy fractions, it. . .

SUMM [0022] During the placing in contact, the alkanols contained in the crude or purified **fusel oils** are grafted onto the anomeric carbons of sugars to manufacture alkyl glycosides.

SUMM [0023] The placing in contact is performed in the presence of an **acid catalyst** such as sulfuric acid, a sulfonic acid such as methanesulfonic acid, hydrochloric acid or hypophosphorous acid or any other **acid catalyst** for carrying out a glycosidation, and mixtures thereof. This acid catalysis may also be carried out with 0.05 to 6. . .

SUMM [0030] in neutralizing the **acid catalyst** and then in filtering off the salt obtained. The neutralization is performed, for example, using an alkali metal or alkaline-earth. . .

SUMM [0036] The isolated product then has a percentage of alkanols derived from the residual **fusel oil** of between 0% and 5% and preferably between 0% and 1%.

SUMM [0053] In practice, there are three main routes for obtaining the adjuvants according to the invention from **reducing sugars** and **fusel oil**.

SUMM [0054] The first route consists in separately placing **fusel oils** in contact with a **reducing sugar**, in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium, until. . . alkyl glycosides is obtained, and in separating out the glycosides from this solution. Next, the alkyl glycosides manufactured from various **reducing sugars** are optionally mixed together in order to obtain the adjuvants according to the invention.

SUMM [0055] The second route consists in mixing together various **reducing sugars** and placing these mixtures of **reducing sugars** in contact with **fusel oils**, in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium, until. . .

SUMM [0056] Finally, the third route consists in using syrups of mixtures of **reducing sugars** derived from starch-rich and hemicellulose-rich plant starting materials containing from 25% to 98%, preferably 60% to 100% and more particularly. . . to 75%, preferably 0% to 40% and more particularly 0% to 10%, of hexoses, and in placing these syrups of **reducing sugars** in contact with **fusel oils**, in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium until. . .

SUMM . . . 5 carbon atoms, mention may be made of ethanol, 2-propanol, n-butanol, 2-methylpropanol, 2-methylbutanol, 3-methylbutanol, n-pentanol and the alkanols contained in **fusel oils**.

DETD Synthesis of Solubilization Adjuvant From D-xylose and **Fusel Oils**

DETD [0147] 1277 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

DETD Synthesis of Adjuvant From L-arabinose and **Fusel Oils**

DETD [0150] 1441 g of **fusel oil** having the composition

below:

Constituent	%
Water	16.1
Ethanol	22.6
2-Propanol	0.2
1-Propanol	2.6
2-Methylpropanol	6.7
1-Butanol	0.3

. . .

DETD Synthesis of Adjuvant From D-glucose and **Fusel Oils**

DETD [0153] 1277 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

DETD [0156] Synthesis of Adjuvant From Mixtures of D-xylose, L-arabinose and D-glucose and **Fusel Oils**

DETD [0157] 1277 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

DETD Synthesis of Adjuvant From Sugar Syrups Derived From Wheat Straw and **Fusel Oils**

DETD [0160] 1500 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

DETD Synthesis of Adjuvant From Sugar Syrups Extracted From Starch-freed

Wheat Bran and **Fusel Oils**

DETD [0163] 1277 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

DETD Synthesis of Adjuvant From Sugar Syrups Extracted From Raw Wheat Bran and **Fusel Oils**

DETD [0166] 1277 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

DETD Synthesis of Adjuvant From D-xylose and **Fusel Oils**

DETD [0169] 150 g of D-xylose are placed in 740 g of **fusel oil** having the composition below:

Constituent	%
Water	10.0
Ethanol	6.0
2-Propanol	0.2
1-Propanol	2.1
2-Methylpropanol	9.3
1-Butanol	0.3

. . .

CLM ~~What is claimed is:~~

1. A process for preparing a solubilization adjuvant, comprising placing **fusel oils** in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium until. . .

2. The process according to claim 1, comprising, before the placing in contact with one or more **reducing sugars**, removing the heavy fractions from the **fusel oils** which have boiling points of greater than 140.degree. C.

3. The process according to claim 2 comprising removing the heavy fractions from the **fusel oils** which have boiling points of greater than 140.degree. C., by distillation.

4. The process according to claim 1, comprising, before the placing in contact with one or more **reducing sugars**, removing the light fractions from the **fusel oils** which have boiling points of less than 100.degree. C.

5. The process according to claim 4 comprising removing the light fractions from the **fusel oils** which have boiling points of less than 100.degree. C., by distillation.

6. The process according to claim 1, comprising using, as **reducing sugars**, pentoses selected from the group consisting of L-arabinose and D-xylose.

7. The process according to claim 1, comprising using glucose as **reducing sugar**.

8. The process according to claim 1, comprising using, as **reducing sugars**, sugar mixtures comprising, on a weight basis, from 25% to 100% of pentoses selected from the group consisting of L-arabinose. . .

TI Process for preparing solubilization adjuvants from **fusel oils** and saccharides|

AB Process for preparing a solubilization adjuvant, which comprises placing **fusel oils** in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50.degree. C. and 130.degree. C. and while removing the water from the reaction medium until a solution of alkyl glycosides is obtained, and separating the glycosides from this solution.

AN 2002:186264 USPATFULL|

TI Process for preparing solubilization adjuvants from **fusel oils** and saccharides|

IN Bertho, Jean Noel, Neuflize, FRANCE
de Baynast, Regis, Versailles, FRANCE

PI US 2002099187 A1 20020725

AI US 2001-8791 A1 20011113 (10)

PRAI FR 2000-14589 20001114

DT Utility|

FS APPLICATION|

LREP KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660|

CLMN Number of Claims: 25|

ECL Exemplary Claim: 1|

DRWN No Drawings

LN.CNT 1061|

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 4 IFIPAT COPYRIGHT 2002 IFI

TI PROCESS FOR PREPARING SOLUBILIZATION ADJUVANTS FROM **FUSEL OILS** AND SACCHARIDES

AB Process for preparing a solubilization adjuvant, which comprises placing **fusel oils** in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50 degrees C. and 130 degrees C. and while removing the water from the reaction. . .

ECLM 1. A process for preparing a solubilization adjuvant, comprising placing **fusel oils** in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50 degrees C. and 130 degrees C. and while removing the water from the reaction. . .

ACLM 2. The process according to claim 1, comprising, before the placing in contact with one or more **reducing sugars**, removing the heavy fractions from the **fusel oils** which have boiling points of greater than 140 degrees C.
3. The process according to claim 2 comprising removing the heavy fractions from the **fusel oils** which have boiling points of greater than 140 degrees C., by distillation.
4. The process according to claim 1, comprising, before the placing in contact with one or more **reducing sugars**, removing the light fractions from the **fusel oils** which have boiling points of less than 100 degrees C.
5. The process according to claim 4 comprising removing the light fractions from the **fusel oils** which have boiling points of less than 100 degrees C., by distillation.
6. The process according to claim 1, comprising using, as **reducing sugars**, pentoses selected from the group consisting of L-arabinose and D-xylose.
7. The process according to claim 1, comprising using glucose as **reducing sugar**.
8. The process according to claim 1, comprising using, as **reducing sugars**, sugar mixtures comprising, on a weight basis, from 25% to 100% of pentoses selected from the group consisting of L-arabinose. . .

TI PROCESS FOR PREPARING SOLUBILIZATION ADJUVANTS FROM **FUSEL OILS** AND SACCHARIDES

AB Process for preparing a solubilization adjuvant, which comprises placing **fusel oils** in contact with one or more **reducing sugars** in the presence of an **acid catalyst**, at a temperature of between 50 degrees C. and 130 degrees C. and while removing the water from the reaction medium until a solution of alkyl glycosides is obtained, and separating the glycosides from this solution.

AN 10155546 IFIPAT;IFIUDB;IFICDB

TI PROCESS FOR PREPARING SOLUBILIZATION ADJUVANTS FROM **FUSEL OILS** AND SACCHARIDES

INF de Baynast; Regis, Versailles, FR
Bertho; Jean Noel, Neuflize, FR

IN de Baynast Regis (FR); Bertho Jean Noel (FR)

PAF Unassigned

PA Unassigned Or Assigned To Individual (68000)

AG KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660, US

PI US 2002099187 A1 20020725

AI US 2001-8791 20011113

PRAI FR 2000-14589 20001114

FI US 2002099187 20020725

DT Utility; Patent Application - First Publication

FS CHEMICAL
APPLICATION

CLMN 25

L4 ANSWER 4 OF 4 WPIDS (C) 2002 THOMSON DERWENT

TI Production of alkyl glycosides useful as a solubilizing agents comprises reacting **fusel oil** with one or more **reducing sugars** in the presence of an **acid catalyst**.

AB FR 2816517 UPAB: 20020916
NOVELTY - Production of a solubilizing agent (I) comprises reacting **fusel oil** with one or more **reducing sugars** in the presence of an **acid catalyst** at 50-130 deg. C while removing water, and separating alkyl glycosides from the resulting solution.
DETAILED DESCRIPTION - INDEPENDENT. . .

TECH UPTX: 20020916

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: The **fusel oil** is distilled to remove heavy fractions boiling above 140degreesC and light fractions boiling below 100degreesC. The **reducing sugars** are selected from L-arabinose, D-xylose, glucose and mixtures of 25-98 wt.% pentoses (especially L-arabinose or D-xylose) and 2-75 wt.% hexoses. . .

TT TT: PRODUCE ALKYL USEFUL SOLUBLE AGENT COMPRISE REACT **FUSEL OIL** ONE MORE REDUCE SUGAR PRESENCE **ACID CATALYST.**

TI Production of alkyl glycosides useful as a solubilizing agents comprises reacting **fusel oil** with one or more **reducing sugars** in the presence of an **acid catalyst.**

AB FR 2816517 A UPAB: 20020916

NOVELTY - Production of a solubilizing agent (I) comprises reacting **fusel oil** with one or more **reducing sugars** in the presence of an **acid catalyst** at 50-130 deg. C while removing water, and separating alkyl glycosides from the resulting solution.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an adjuvant (I') comprising a mixture of polyglycosides of formula RO(G1)a(G2)b(G3)c(G4)d(G5)e (II);

(2) a composition comprising 10-60 wt.% (I') and 40-90 wt.% nonionic, anionic, amphoteric and/or cationic surfactants; and

(3) a composition comprising 0.5-5 wt.% (I'), 2-7 wt.% 8-14C alkyl polyglycosides, 1-10 wt.% 2-5C alcohols and 0.1-3 wt.% lipophilic active ingredients

R = ethyl (0-20 wt.%), n-propyl (0-5 wt.%), isobutyl (0-15 wt.%), isoamyl (28-80 wt.%) and 2-methylbutyl (10-40 wt.%);

G1-G5 = sugar residues;

a-e = 0 or 1, provided that the sum of a-e is at least 1.

USE - (I) is useful for solubilizing lipophilic active ingredients, especially essential oils, in cosmetic, detergent, pharmaceutical and agrochemical compositions.

Dwg.0/0

AN 2002-492503 [53] WPIDS

DNC C2002-139863

TI Production of alkyl glycosides useful as a solubilizing agents comprises reacting **fusel oil** with one or more **reducing sugars** in the presence of an **acid catalyst.**

DC B07 C07 D21 D25 E19 F06

IN BERTHO, J; DE BAYNAST, R; BERTHO, J N

PA (ARDA-N) ARD AGRO IND RECH & DEV; (ARDA-N) ARD AGRO IND RECH & DEV SA; (BERT-I) BERTHO J N; (DBAY-I) DE BAYNAST R

CYC 28

PI FR 2816517 A1 20020517 (200253)* 40p

EP 1211258 A1 20020605 (200253) FR

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

US 2002099187 A1 20020725 (200254)

JP 2002220399 A 20020809 (200267) 16p

ADT FR 2816517 A1 FR 2000-14589 20001114; EP 1211258 A1 EP 2001-402808 20011030; US 2002099187 A1 US 2001-8791 20011113; JP 2002220399 A JP 2001-344980 20011109

PRAI FR 2000-14589 20001114